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IN THE CLAIMS:

1. (Currently Amended) A positive electrode material for a lithium-ion or lithium-ion polymer battery, having the formula

$$LiNi_XCo_YM_ZO_2 \cdot (LiOH)_k(Li_2CO_3)_m(LiHCO_3)_n$$

wherein M is one or more transition metals different than Ni and Co, X+Y+Z=1, X[[≥Y]] ≥0, Z<0.5, 0.001<k+m+n<0.3, and k+n<0.1m.

2. (Original) The positive electrode material of claim 1 wherein k+n<0.01m.

3. (Original) The positive electrode material of claim 1 wherein k+n<0.001m.

4. (Cancelled)

5. (Currently Amended) The positive electrode material of claim [[4]] 1 wherein k+n<0.01m.

6. (Currently Amended) The positive electrode material of claim [[4]] 1 wherein k+n<0.001m.

7. (Original) The positive electrode material of claim 1 prepared by exposing the positive electrode material at a temperature of 0-650°C to a CO_2-containing gas having a partial pressure of CO_2 in the range of 0.0001-100 atm to convert LiOH to Li_2CO_3.

8. (Original) The positive electrode material of claim 7 further prepared by heating the positive electrode material to a temperature of at least 250°C in the presence of an oxygen-containing gas having a partial pressure of O_2 in the range of 0.01-99 atm to convert $LiHCO_3$ to Li_2CO_3.

9. (Original) The positive electrode material of claim 1 prepared by heating the positive electrode material to a temperature of at least 250°C in the presence of an oxygen-containing gas having a partial pressure of O_2 in the range of 0.01-99 atm to convert $LiHCO_3$ to Li_2CO_3.

10. (Original) The positive electrode material of claim 1 prepared by heating the positive electrode material to a temperature of 250-500°C in the presence of an oxygen-containing gas having a partial pressure of O_2 in the range of 0.01-99 atm to convert $LiHCO_3$ to Li_2CO_3 and in the presence of a CO_2-containing gas having a partial pressure of CO_2 in the range of 0.0001-100 atm to convert LiOH to Li_2CO_3.

11. (Currently Amended) A lithium ion battery comprising a positive electrode material of the formula

$$LiNi_XCo_YM_ZO_2 \cdot (LiOH)_k(Li_2CO_3)_m(LiHCO_3)_n$$

wherein M is one or more transition metals different than Ni and Co, $X+Y+Z=1$, $X[[\geq Y]] \geq 0$, $Z<0.5$, $0.001<k+m+n<0.3$, and $k+n<0.1m$.

12. (Original) The lithium ion battery of claim 11 wherein $k+n<0.01m$.

13. (Original) The lithium ion battery of claim 11 wherein k+n<0.001m.

14. (Cancelled)

15. (Currently Amended) The lithium ion battery of claim [[14]] 11 wherein k+n<0.01m.

16. (Currently Amended) The lithium ion battery of claim [[14]] 11 wherein k+n<0.001m.

17. (Original) The lithium ion battery of claim 11 wherein the positive electrode material is prepared by exposing the positive electrode material at a temperature of 0-650°C to a CO_2-containing gas having a partial pressure of CO_2 in the range of 0.0001-100 atm to convert LiOH to Li_2CO_3.

18. (Original) The lithium ion battery of claim 17 wherein the positive electrode material is further prepared by heating the positive electrode material to a temperature of at least 250°C in the presence of an oxygen-containing gas having a partial pressure of O_2 in the range of 0.01-99 atm to convert $LiHCO_3$ to Li_2CO_3.

19. (Original) The lithium ion battery of claim 11 wherein the positive electrode

material is prepared by heating the positive electrode material to a temperature of at least 250°C in the presence of an oxygen-containing gas having a partial pressure of O_2 in the range of 0.01-99 atm to convert $LiHCO_3$ to Li_2CO_3.

20. (Original) The lithium ion battery of claim 11 wherein the positive electrode material is prepared by heating the positive electrode material to a temperature of 250-500°C in the presence of an oxygen-containing gas having a partial pressure of O_2 in the range of 0.01-99 atm to convert $LiHCO_3$ to Li_2CO_3 and in the presence of a CO_2-containing gas having a partial pressure of CO_2 in the range of 0.0001-100 atm to convert LiOH to Li_2CO_3.